

CLAIMS

- 1) Cover (2, 200, 201, 203, 204) for an electric accumulator (1, 100, 101, 102, 103, 104) of the type with free electrolyte adapted to be integral with the container (3) of said accumulator (1, 100, 101, 102, 103, 104) **characterised in** 5 **that it has at least one valve device (9) having an inlet (10) communicating with one or more cells (5) of said accumulator and an outlet communicating (11) with the external environment (A), said valve device being adapted to prevent the leaking of electrolyte (E) present in said one or more cells (5) and to allow the disposal to the outside of the gases that develop inside said accumulator (1, 100, 101, 102, 103, 104) when the pressure in said one or more cells (5) exceeds a predetermined value.**
- 2) Cover (2, 200, 201, 203, 204) according to claim 1) **characterised in that** said valve device (9) **communicates with said one or more cells (5) through at least one discharge channel (12) having at least one inlet mouth (13) communicating** 15 **with said one or more cells (5) and at least one outlet mouth (14) communicating with said inlet (10).**
- 3) Cover (201, 202, 203) according to claim 1) or 2) **characterised in that** the lower surface of said at least one discharge channel (12) has one or more tilted planes (15) converging towards said at least one inlet mouth (13) to ease the re- 20 entry of the electrolyte (E) into said one or more cells (5) and to equally distribute the electrolyte (E) present in said at least one discharge channel (12) between said one or more cells (5).
- 4) Cover (202, 203) according to any one of the previous claims **characterised in that** the upper surface of said discharge channel (12) has one or more tilted planes (16) that define first tanks (17) communicating with each other.
- 5) Cover (203) according to any one of claims 2) to 4) **characterised in that** said at least one inlet mouth (13) communicates with said one or more cells (5) through at least one accumulation chamber (18) each communicating with one of said one or more cells (5) through at least one vent channel (19).
- 6) Cover (203) according to claim 5) **characterised in that** the lower surface of said accumulation chamber (18) has one or more tilted planes (20) converging towards said at least one vent channel (19) to ease the re-entry of the electrolyte (E) into the corresponding cell (5).
- 7) Cover (203) according to claim 5) or 6) **characterised in that** the upper 35 surface of said accumulation chamber (18) has one or more upper tilted planes

- (21) that define second tanks (22) adapted to further hold said electrolyte (E).
- 8) Cover (204) according to claim 1) characterised in that each of said one or more cells (5) is provided with at least one valve device (9).
- 9) Cover (2, 200, 201, 202, 203, 204) according to any one of the previous claims 5 characterised in that said at least one valve device (9) is an over-pressure valve.
- 10) Cover (2, 200, 201, 203, 204) according to any one of the previous claims characterised in that said predetermined over-pressure value is not less than the pressure exerted by the head of said electrolyte (E) on said inlet (10) when said accumulator (1, 100, 101, 102, 103, 104) is arranged upside down.
- 11) Electric accumulator (1, 100, 101, 102, 103, 104) of the type with free electrolyte comprising:
- a container (3) provided on the inside with at least one cell (5) adapted to house the plate groups (8) of said accumulator (1, 100, 101, 102, 103, 104) and to contain the electrolyte (E);
 - at least one cover (2, 200, 201, 203, 204) adapted to close said container (3);
- characterised in that said at least one cover (2, 200, 201, 203, 204) is realised according to any one of claims 1) to 10).
- 12) Cover (2, 200, 201, 203, 204) and electric accumulator (1, 100, 101, 102, 20 103, 104) of the type with free electrolyte substantially as described with reference to the attached drawings.